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**ABSTRACT**

Test components and results of the Grade 6 Social Studies Achievement Tests in Alberta, Canada administered to 28,566 students are described in this booklet. All questions were drawn from three prescribed topics: Topic A--"How People in Earlier Times Met Their Needs"; Topic B--"How People in Eastern Societies Meet Their Needs Today"; and Topic C--"Meeting Needs Through Local, Provincial, and Federal Government." The test had two components: Part A consisting of 50 multiple-choice questions and worth 70% of the total score; and Part B, worth 30% of the total, consisting of four short answer questions and a composition. The provincial average score on the total test was 59.17%. On Part A, the average score was 59.8%. Achievement was not uniform among the reporting categories, and students achievement was highest on Topic A and lowest on Topic C. On Part B, the average score was 57.3%. Student achievement was higher on short answer questions than on the composition. Overall, the standard established for this test was met by 86.3% of the students. Among the topics discussed in the booklet are test design, development, and description; test administration; scoring; results and observations; and interpretations of jurisdictional results. An appendix supplies the written-response questions and excerpts from the scoring guide. (TRS)

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ED274593

# Provincial Report

Grade 6 Social Studies Achievement Test

October 1985

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## Student Evaluation

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## EXECUTIVE SUMMARY

### Description of the Test

The Grade 6 Social Studies Test was based on the *1981 Alberta Social Studies Curriculum*. All test questions were drawn from the content of the three topics prescribed for Grade 6. These topics are:

- Topic A - How People in Earlier Times Met Their Needs
- Topic B - How People in Eastern Societies Meet Their Needs Today
- Topic C - Meeting Needs Through Local, Provincial, and Federal Government.

The test had two components. Part A consisted of 50 multiple-choice questions and was worth 70% of the total test score. Part B, worth 30% of the total score, consisted of four short answer questions and a composition. The two components were printed in separate booklets.

### Administration

The test was administered on June 11, 1985 to 28 566 students.

### Results

The provincial average score on the total test, consisting of both multiple choice and written-response components, was 59.1%. The standard deviation<sup>1</sup> was 15.2.

Part A (Multiple Choice): The provincial average on the multiple choice component of the test was 29.9 out of 50, or 59.8%. The standard deviation was 8.5. Achievement was not uniform among the reporting categories. Of the three topics, students achieved highest on Topic A and lowest on Topic C.

Part B (Written Response): The provincial average on the written-response component of the test was 17.2 out of 30 or 57.3%. The standard deviation was 4.9. Student achievement was higher on the short answer questions than on the composition.

In a typical Grade 6 classroom, 85% of the students should be able to achieve the objectives of the Social Studies program. On the Grade 6 Social Studies Achievement Test, 86.3% of the students met the standard set for this test.<sup>2</sup> On the multiple choice questions 84.6% of the students met the standard for this part of the test. By topic, the results were as follows: 89.4% met the standard set for Topic A, 83.2% for Topic B, and 79.2% for Topic C. On the written response questions, 84.2% of the students met the standard for this part of the test. For the short answer questions, 89.7% met the standard, while on the composition only 68.6% of the students met it.

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<sup>1</sup> A measure of variability of scores. In a normal distribution 68% of the students' scores would fall within one standard deviation of the average.

<sup>2</sup> Minimum acceptable level of achievement; See standard-setting, page 10.

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## ACKNOWLEDGMENTS

The successful administration of the Grade 6 Social Studies Achievement Test was due to the concerted effort of all involved. Success would not have been possible without substantial contributions from many people, particularly the administrators, teachers, and students, who extended their full co-operation.

The advice received from the Test Review Committee regarding design, development, and reporting has been particularly valuable in the implementation of the Achievement Testing Program. This Committee has representation from:

The Alberta Teachers' Association  
The Conference of Alberta School Superintendents  
The Universities  
Alberta Education

The contribution made by this group is gratefully acknowledged.

The technical expertise provided by Dr. T. O. Maguire, Professor, Division of Educational Research Services, University of Alberta, has also contributed greatly to the advancement of the Achievement Testing Program, and his work in this area is acknowledged and appreciated.

George H. Bevan  
Director  
Student Evaluation Branch

## Chapter 1

### THE ACHIEVEMENT TESTING PROGRAM

The Achievement Testing Program provides Alberta Education, school jurisdictions, and the public with information significant at the provincial and local levels about student knowledge, understanding, and skills in relation to program objectives.

The achievement tests are specific to the program of studies prescribed by the Minister of Education. Curriculum specifications for each subject area, provided by the Curriculum Branch and the Language Services Branch of Alberta Education identify the major content areas, the specific learning objectives within each area, and the emphasis that each objective is to receive. The test questions reflect these curriculum specifications.

The achievement tests are administered on a cyclical basis in four subject areas: language arts, social studies, mathematics, and science, and at three grade levels, 3, 6, and 9. In 1985, achievement tests were administered in Grade 3 English Language Arts, Grade 6 Social Studies, and Grade 9 Science.

Following administration of the achievement tests in June of each year, the results are reported to each school jurisdiction. These district profiles include results for each school and each student, but individual statements of results are not issued to students.

This report is designed to assist school jurisdictions in interpreting their results.

#### Exemptions from the Achievement Testing Program

Under normal circumstances, the following are exempt from achievement testing:

- Students participating in Special Education programs
- Students in classes in which the subject being tested has been cycled and taught in an alternate year
- Students in classes in which the subject being tested has been taught in an alternate semester
- Students enrolled in English as a Second Language programs

## Chapter 2

### TEST DESIGN, DEVELOPMENT, AND DESCRIPTION

#### Test Design and Development Process

The development of the Grade 6 Social Studies Achievement Test progressed through three stages: preparation of curriculum specifications, design and development of the test, and construction of the final test form.

#### 1. Curriculum Specifications

The Curriculum Branch of Alberta Education prepared curriculum specifications that identify the major content areas, the specific objectives within each area, and the emphasis each is to receive in the classroom. The curriculum specifications were distributed to all school jurisdictions in the province in the publication *Grade 6 Social Studies Curriculum Specifications*.

#### 2. Test Design and Development

The Student Evaluation Branch of Alberta Education developed a test blueprint and reporting categories based on the weightings of the prepared curriculum specifications. Test questions were developed by Grade 6 Social Studies teachers from all parts of the province under the supervision of the Student Evaluation Branch. Revisions were made to the questions on the basis of teacher recommendations and field test results. Two pilot tests were constructed from the bank of field tested questions and administered to approximately 600 Grade 6 students in different parts of the province. The final test design, complete with blueprint and sample questions, was presented to all school jurisdictions in the province in the publication *Student Achievement Testing Program: Grade 6 Social Studies* (Student Evaluation Branch Bulletin, Volume 4, Number 11, September 1984).

#### 3. Final Test Form

A draft of the final test was constructed from those questions on the pilot tests that best reflected curricular intent and test design requirements. The Test Review Committee reviewed the draft for content validity, accuracy, and technical merit. Final changes were made to the test, taking into consideration the recommendations of this committee.

#### Test Description

The test was based on the *1981 Alberta Social Studies Curriculum*. All test questions were drawn from the content of the three topics prescribed for Grade 6. These topics are: How People in Earlier Times Met Their Needs, How People in Eastern Societies Meet Their Needs Today, and Meeting Needs Through Local, Provincial, and Federal Government. Content emphasis was derived from the *Grade 6 Social Studies Curriculum Specifications*.

The test had two components, Part A and Part B, which were printed as separate booklets. Part A contained the multiple-choice questions and was worth 70% of the total test score. The students had 50 minutes to complete the 50 items in this portion of the test. The students were required to use a separate answer sheet for this part of the test.

Part B consisted of written-response questions. This section was worth 30% of the total test score and consisted of several questions requiring short written responses and a composition. The questions were based on a common content area, and included all three types of objectives: value, knowledge, and skill. Students were given 40 minutes to write this part of the test.

#### Part A: Multiple Choice

The topics and objectives on which the multiple-choice questions of the test were based are shown in the table below. (See also the test blueprint on page 6.)

Table 1  
Number and Distribution of Questions  
Grade 6 Social Studies Achievement Test

|              | <u>Value</u> | <u>Knowledge</u> | <u>Skill</u> | <u>Total</u> | <u>Emphasis in %</u> |
|--------------|--------------|------------------|--------------|--------------|----------------------|
| Topic A      | 2            | 7                | 8            | 17           | 34                   |
| Topic B      | 2            | 7                | 7            | 16           | 32                   |
| Topic C      | 2            | 8                | 7            | 17           | 34                   |
| TOTAL        | 6            | 22               | 22           | 50           |                      |
| Emphasis (%) | 12           | 44               | 44           |              | 100                  |

#### Reporting Categories

To provide information that is both meaningful and reliable, it was necessary to group questions into reporting categories (subtests). Each reporting category requires a minimum of six questions to achieve statistical reliability. The reporting categories used in the Grade 6 Social Studies Achievement Test are described on the following page. The distribution of questions by category is presented in Table 3 on page 7.

1. TOPIC A: All questions related to how people in earlier times met their needs. In this topic, students examine basic human needs and classify them as physical, psychological, and social. The various types of needs are then examined in terms of how they created issues for ancient Mediterranean or pre-Columbian American civilizations.
2. TOPIC B: All questions related to how people in Eastern societies meet their needs today. The focus of this topic is on issues related to the meeting of physical, psychological, and social needs by the peoples of China and/or South East Asia.
3. TOPIC C: All questions related to meeting needs through local, provincial, and federal government. This topic focuses on how Canadians help each other meet their needs through government.
4. RECALL AND COMPREHENSION (ALL TOPICS): Recalls and understands facts, concepts, and generalizations.
5. RECALL AND COMPREHENSION (TOPIC A): Recalls and understands facts, concepts, and generalizations related to how people in earlier times met their needs.
6. RECALL AND COMPREHENSION (TOPIC B): Recalls and understands facts, concepts, and generalizations related to how people in Eastern societies meet their needs today.
7. RECALL AND COMPREHENSION (TOPIC C): Recalls and understands facts, concepts, and generalizations related to meeting needs through local, provincial, and federal government.
8. VALUE CONCEPTS AND VALUING SKILLS (ALL TOPICS): Recalls and understands competing values and uses skills to analyze competing value positions.
9. INQUIRY SKILLS I (ALL TOPICS): Uses skills related to identifying elements of an issue, formulating research questions and procedures, and gathering data.
10. INQUIRY SKILLS II (ALL TOPICS): Uses skills related to analyzing, evaluating, and synthesizing data.
11. INQUIRY SKILLS III (ALL TOPICS): Uses skills related to resolving issues, planning courses of action, and evaluating decisions and courses of action.

### Approach to Optional Content

The curriculum allows a variety of civilizations and societies to be selected for study in topics A and B. Since many different civilizations and societies were studied in Grade 6 classrooms throughout the province, it was not possible to test students' recall of specific facts about particular civilizations or societies. Students were therefore tested on their recall and comprehension of general information related to the prescribed concepts and generalizations. To do well, students needed to understand that the civilizations or societies they studied represented only examples of many similar civilizations or societies.

To avoid over-generalization about ways in which people in earlier times met their needs, some questions in Topic A were related to short accounts of selected early civilizations. Similarly, in Topic B, some questions were based on short accounts of individual people within different cultures.

**BLUEPRINT FOR THE GRADE 6 SOCIAL STUDIES ACHIEVEMENT TEST**  
**Part A: Multiple-Choice Questions**  
**(60% of the total test score)**

**CONCEPT  
REPORTING CATEGORY**

|                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                           |              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>5.8 VALUE CONCEPTS:</b><br>Knowledge of competing values or value positions<br><br>5.3 Social equality/<br>Personal advancement<br>5.4 Technological development/<br>Maintenance of tradition<br>5.5 Joint action/<br>Self-reliance | <b>6. HOW PEOPLE IN EARLIER TIMES MET THEIR NEEDS:</b><br>Knowledge of facts, concepts, and generalisations related to the meeting of needs in eastern society.<br><br>6.1 Basic needs<br>6.2 Social change<br>6.3 Class structures<br>6.4 Equality of opportunity<br>6.5 Civilization | <b>7. HOW PEOPLE IN EASTERN SOCIETIES MET THEIR NEEDS TODAY:</b><br>Knowledge of facts, concepts, and generalisations related to the meeting of needs in eastern society.<br><br>7.1 Perspective<br>7.2 Customs and traditions<br>7.3 Cross-cultural sharing<br>7.4 Scarcity<br>7.5 International agencies | <b>8. MEETING NEEDS THROUGH LOCAL, PROVINCIAL, AND FEDERAL GOVERNMENT:</b><br>Knowledge of facts, concepts and generalisations related to the meeting of needs through government.<br><br>8.1 Politics<br>8.2 Power<br>8.3 Government<br>8.4 Influence<br>8.5 Levels of government<br>8.6 Bill<br>8.7 Law | <b>TOTAL</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|

**PROCESSES  
REPORTING CATEGORY**

|                                                                                                                                                                      |                                                                                                         |     |     |     |     |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|------|
| <b>1. KNOWLEDGE AND COMPREHENSION:</b><br><br>Ability to recall or recognise data and the ability to transform data into other words.                                | 1.1 Recall facts<br>1.2 Understand concepts<br>1.3 Understand generalisations                           | 6%  | 14% | 14% | 16% | 50%  |
| <b>2. INQUIRY SKILLS (I):</b><br><br>Ability to identify an issue, select appropriate research questions and to apply data gathering and data organising techniques. | 2.1 Identify and focus on the issue<br>2.2 Formulate research questions<br>2.3 Gather and organise data |     | 6%  | 4%  | 6%  | 16%  |
| <b>3. INQUIRY SKILLS (II):</b><br><br>Ability to analyse, evaluate and synthesise data.                                                                              | 3.1 Analyse and evaluate data<br>3.2 Synthesise data                                                    |     | 4%  | 8%  | 4%  | 16%  |
| <b>4. INQUIRY SKILLS (III):</b><br><br>Ability to resolve the issue, apply the decision and evaluate the decision.                                                   | 4.1 Resolve the issue<br>4.2 Apply the decision<br>4.3 Evaluate the decision                            |     | 6%  | 2%  | 4%  | 12%  |
| <b>5. VALUING SKILLS:</b><br><br>Ability to resolve conflicts arising from competing values.                                                                         | 5.1 Value analysis<br>5.2 Decision-making                                                               | 6%  |     |     |     | 6%   |
| <b>TOTAL</b>                                                                                                                                                         |                                                                                                         | 12% | 30% | 28% | 30% | 100% |

Table 3  
Distribution of Questions by Reporting Category  
Multiple Choice

| Category                                          | Questions                                                               | Number of Questions |
|---------------------------------------------------|-------------------------------------------------------------------------|---------------------|
| Topic A                                           | 1 - 17                                                                  | 17                  |
| Topic B                                           | 18 - 33                                                                 | 16                  |
| Topic C                                           | 34 - 50                                                                 | 17                  |
| Recall and Comprehension (all topics)             | 2,3,4,5,6,7,12,19,<br>20,21,22,23,24,29,<br>42,43,44,46,47,48,<br>49,50 | 22                  |
| Recall and Comprehension (Topic A)                | 2,3,4,5,6,7,12                                                          | 7                   |
| Recall and Comprehension (Topic B)                | 19,20,21,22,23,24,<br>29                                                | 7                   |
| Recall and Comprehension (Topic C)                | 42,43,44,46,47,48,<br>49,50                                             | 8                   |
| Value Concepts and Valuing Skills<br>(all topics) | 10,11,26,27,34,35                                                       | 6                   |
| Inquiry Skills I (all topics)                     | 1,8,9,18,25,35,37,<br>38                                                | 8                   |
| Inquiry Skills II (all topics)                    | 13,14,28,30,31,32,<br>36,39                                             | 8                   |
| Inquiry Skills III (all topics)                   | 15,16,17,33,40,41                                                       | 6                   |

## Part B: Written Response

The Written-Response section of the exam consisted of 5 questions. Questions 1 to 4 were short-answer responses. Question 5 asked the students to write a composition. The objectives on which the written response questions were based are shown in the blueprint below.

Table 4  
Blueprint For The Grade 6 Social Studies  
Achievement Test  
Part B: Written Response  
(30% of total test score)

| REPORTING CATEGORY                            | DESCRIPTION OF WRITING ASSIGNMENT                                                                                          | SPECIFIC CONTENT                                                      | PROPORTION OF TOTAL SCORE (%) |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------|
| I. Identification of the Elements of an Issue | 1. Recall of concepts related to an issue. Knowledge objectives -- recall and understand concepts.                         | Families in Canada and Southeast Asia meeting their basic needs.      | 2                             |
|                                               | 2. Identification of speakers and value positions. Value objectives -- develop understanding of values and analyze values. | Value positions concerning senior citizens' homes in Canada.          | 7                             |
|                                               | 3. Description of advantages and disadvantages of a course of action. Skill objectives -- analyze and evaluate data.       | Advantages and disadvantages of senior citizens' homes.               | 4                             |
|                                               | 4. Defence of a generalization about the organization of society to meet needs. Skill objectives -- synthesize data.       | The types of basic needs that senior citizens' homes attempt to meet. | 2                             |
| SUBTOTAL                                      |                                                                                                                            |                                                                       | 15                            |
| II. Resolution of an Issue                    | 5. Presentation and defence of a position. Skill objectives -- resolve the issue and communicate effectively.              | Should young people be encouraged to stay in their home communities?  | 15                            |
| SUBTOTAL                                      |                                                                                                                            |                                                                       | 15                            |
| TOTAL                                         |                                                                                                                            |                                                                       | 30                            |

## Chapter 3

### ADMINISTRATION OF THE TEST

#### Determination of the Student Population

The larger school jurisdictions could choose to test either all Grade 6 Social Studies students or students from randomly selected schools. School boards were required to notify the Student Evaluation Branch of their wish to have student achievement sampled in their jurisdiction. No jurisdiction opted for sampling. Therefore, the only students who did not write the Grade 6 Social Studies Achievement test are the students normally exempted (see page one) and students who were absent from school on June 11, 1985, during the writing of the test.

#### Administration

Jurisdictions were requested in April to report the number of students enrolled in Grade 6 Social Studies in each school. In May, letters were sent to the superintendents and principals regarding the test schedule procedures for test administration and requirements for returning test materials. Information addressed to the teachers related to the administration of the test and the return of test materials. Jurisdictions were sent the appropriate number of tests and administration instructions, packaged according to school. Immediately after the test was administered, teachers were instructed to collect all test booklets and answer sheets and return them to the principal for forwarding to school board offices. These offices were responsible for sending the test booklets and answer sheets to the Student Evaluation Branch.

As a service to school jurisdictions, a French translation of the Grade 6 Social Studies Achievement Test was prepared, and was available upon request. Alberta Education scored the multiple-choice portion of the test. Jurisdictions were provided with a French translation of the scoring guide for the written-response part of the test.

Staff from the Regional Offices of Alberta Education supervised the administration of the test in private schools.

#### Data Collection

A total of 970 schools from 138 public and separate school jurisdictions returned scorable booklets for 28 566 students. A total of 84 schools from 79 private jurisdictions returned scorable booklets for 741 students. In addition, 30 schools requested and returned scorable booklets for 569 students who wrote the French translations of the Grade 6 Social Studies test.

### Standard-Setting

While provincial averages are useful for comparing the scores of students in a particular school or jurisdiction with overall levels of achievement, it is not possible to know whether the students in the province did as well as they should. A test score by itself has limited meaning without comparison to a standard. Tests vary in difficulty: a raw score of 25/50, for example, could represent very high achievement on one test, and very low achievement on another.

To establish a standard that allows the assessment of overall achievement on the test, the Student Evaluation Branch follows certain procedures. For the Grade 6 Social Studies test, experienced Grade 6 teachers from all parts of the province met to determine what raw score would be expected on the test for a borderline student. The borderline is the division between the student who could be expected to minimally achieve the objectives, and one who could not. After a review of the prescribed curriculum, it was judged that, given adequate teaching and resources, 85% of the Grade 6 students should be able to minimally achieve the objectives of the Grade 6 Social Studies curriculum, as reflected by the achievement test. Since 85% of the students should be able to reach this level, the borderline student would be at the 15th percentile in ability.

The teachers examined each question on the test and determined the difficulty of that question for a 15th percentile student. From difficulties of individual questions, the overall test difficulty for the borderline student was determined. The average of the test difficulties established by the teachers is the standard for the test. For the Social Studies Achievement Test, the standard established was as follows: Given the nature and difficulty of this test, 85% of the students should be able to achieve a score of 42/100 or better on the total test. The standard for the multiple-choice part of the test was 21/50 or higher, while the standard for the written response section was 13/30 or better. Tables 9 and 14 in Chapter 5 report a comparison of student scores to standards by reporting category for the multiple-choice and written-response sections of the test.

## Chapter 4

### SCORING OF PART B: WRITTEN RESPONSE

#### Organization of Markers

A marking centre was established in Edmonton at the Legislature Annex. One hundred and five teachers from across the province scored Part B: Written-Response from July 22 to July 26, 1985. To qualify for marking, each teacher was required to have a valid permanent Alberta teaching certificate, to have taught Grade 6 Social Studies for at least two years, and to be currently teaching Grade 6 Social Studies. In addition, markers were required to have been recommended by their superintendents.

Twenty-two teachers from across the province were appointed group leaders. They met with Student Evaluation Branch personnel on Friday, July 19, 1985 to help prepare for the marking session. This one-day session for group leaders consisted of reviewing the scoring criteria for the five written-response questions and discussing papers that were generally representative of the range of student writing apparent on question 5. The principal focus of the group leaders' discussion was the appropriateness of the scoring guides and their application to the students' writing. In essence, this group validated the standard for assessing Grade 6 students' writing.

#### Training

On Monday, July 22, the 105 markers met at the Legislature Annex. Markers were divided into four stations, each supervised by a member of the Student Evaluation Branch. Marker training occurred in three phases, on three separate days. Initially, markers reviewed the marker manuals, general scoring procedures, and scoring criteria for Section 1 of the written response. This was followed by small-group discussions, led by the group leaders, on the interpretation and application of the scoring criteria for Section 1.

On Tuesday afternoon, the second phase of training occurred in preparation for the scoring of Section 2 of the test. The second set of criteria were reviewed, followed by small group discussions.

On Thursday morning, the final phase of training preceded the scoring of Section 3. Markers reviewed the scoring criteria for question 5 and, in their small groups, read and discussed student papers selected to exemplify the scoring criteria.

#### Scoring

Before papers were delivered to markers, student identification information was removed and the booklets were sorted into random bundles of 10. Thus, the markers had no way of knowing the identities of the students who wrote the paper, or the students' schools.

For marking purposes, each paper was divided into three sections, each section to be scored by a different reader. Thus, while each section was read only once, each paper was scored by three different markers.

The scoring of the papers was divided among the three markers as follows: Section 1 (Marker 1) - Questions 1, 2a, 2b; Section 2 (Marker 2) - Questions 3a, 3b, 4; Section 3 (Marker 3) - Question 5. The scoring sheets were designed to accommodate this division of scoring.

This procedure produces results that are almost as reliable at the jurisdiction level as if each paper had been read from beginning to end by three different scorers. If an essay is to be marked reliably at an individual level (for example, to be used for promotion purposes for the individual student), it is highly desirable to have it scored by at least three independent readers. In this way, it will be ensured that the student does not get a marker who scores consistently higher (easier) or lower (harder) than average in spite of training and scoring procedures designed to limit these variations. At the jurisdiction level, where individual scores are not of primary concern, three readers scoring successive questions produce statistically comparable results. In other words, with three markers scoring successive questions, marker bias will tend to average out for any school. This procedure represents a very considerable saving of effort and cost.

To increase marking consistency, reliability reviews were used in training sessions and every half-day in marking Question 5. The 105 markers were divided into 20 groups and group leaders were appointed to chair the reliability reviews. At these reviews all markers were given identical sets of two papers. They marked each paper independently and then compared and discussed results, thereby developing a group rationale for scoring. Results of these group sessions were compiled and distributed to markers at the next reliability review so that markers could compare the scores they had assigned with those most frequently assigned by all the other markers. Thus, consistency of scoring was encouraged among all markers.

In addition to the reliability reviews, marker consistency was measured by recirculating 514 papers chosen at random for rescoring. The average paper when rescored changed by 2.4 marks out of the possible 30. Scores were equally likely to have been raised or lowered by the rescoring. The correlation coefficient between the two sets of scores was .775.

Following completion of the scoring, markers were asked to rate the written-response scoring system. The key for Questions 1 through 4 was most commonly rated applicable to most of the papers, as were the descriptors for Question 5. A majority of the teachers found the training to be useful, with 88% to 96% rating the use of scoring guide, sample papers, reliability reviews, and preliminary in-service as either "quite helpful" or "very helpful".

## Chapter 5

### RESULTS AND OBSERVATIONS

#### Test Results

The provincial mean for the total test, which consisted of the two components, the multiple-choice and written-response, was 59.1%. The standard deviation was 15.2.

Table 5 contains averages and standard deviations for the multiple-choice and written-response questions. Averages are in raw scores, which are the average number of marks obtained on each part of the test.

Table 5

Multiple-Choice and Written-Response Raw Score Totals  
Grade 6 Social Studies Achievement Test

| Test Section     | Total Marks | Weighting (%) | Raw Score Average | Standard Deviation |
|------------------|-------------|---------------|-------------------|--------------------|
| Multiple Choice  | 50          | 70            | 29.9              | 8.5                |
| Written Response | 30          | 30            | 17.2              | 4.8                |

Table 6 presents the percentage of students scoring at or above the minimum acceptable standard for the total test. It shows that 86.3% of the students who wrote the Grade 6 Social Studies Achievement Test performed at or above the minimum acceptable standard.

Table 6

Comparison of Results to Standards  
Total Test

| Total Test                           | % Score Representing Minimum Standard | % of Students Scoring at or above the Minimum Standard |
|--------------------------------------|---------------------------------------|--------------------------------------------------------|
| Multiple Choice and Written Response | 42                                    | 86.3                                                   |

### Frequency Distribution for Total Test Results

The percentage of students who obtained each score on the test (Relative frequency) and the percentage of students scoring at or below each score (Cumulative frequency) are presented in Table 7 below.

Table 7  
Frequency Distribution of Total Test Results  
Grade 6 Social Studies

| SCORE | REL. FREQ.<br>(%) | CUM. FREQ.<br>(%) | SCORE | REL. FREQ.<br>(%) | CUM. FREQ.<br>(%) |
|-------|-------------------|-------------------|-------|-------------------|-------------------|
| 7     | .0                | .0                | 55    | 2.2               | 40.1              |
| 10    | .0                | .0                | 56    | 2.3               | 42.4              |
| 11    | .0                | .1                | 57    | 2.3               | 44.8              |
| 12    | .0                | .1                | 58    | 2.2               | 47.0              |
| 13    | .0                | .1                | 59    | 2.4               | 49.4              |
| 14    | .0                | .1                | 60    | 2.3               | 51.7              |
| 15    | .0                | .1                | 61    | 2.5               | 54.2              |
| 16    | .1                | .2                | 62    | 2.4               | 56.6              |
| 17    | .1                | .3                | 63    | 2.5               | 59.1              |
| 18    | .1                | .3                | 64    | 2.4               | 61.5              |
| 19    | .1                | .4                | 65    | 2.4               | 63.8              |
| 20    | .1                | .5                | 66    | 2.4               | 66.3              |
| 21    | .1                | .7                | 67    | 2.2               | 68.5              |
| 22    | .1                | .8                | 68    | 2.4               | 70.9              |
| 23    | .2                | 1.0               | 69    | 2.1               | 73.0              |
| 24    | .2                | 1.2               | 70    | 2.2               | 75.2              |
| 25    | .3                | 1.4               | 71    | 2.0               | 77.2              |
| 26    | .3                | 1.8               | 72    | 2.0               | 79.2              |
| 27    | .3                | 2.1               | 73    | 1.9               | 81.1              |
| 28    | .4                | 2.5               | 74    | 1.9               | 83.0              |
| 29    | .5                | 3.0               | 75    | 1.8               | 84.8              |
| 30    | .4                | 3.4               | 76    | 1.8               | 86.6              |
| 31    | .5                | 3.9               | 77    | 1.6               | 88.1              |
| 32    | .7                | 4.6               | 78    | 1.5               | 89.6              |
| 33    | .8                | 5.4               | 79    | 1.5               | 91.1              |
| 34    | .8                | 6.2               | 80    | 1.2               | 92.4              |
| 35    | .9                | 7.1               | 81    | 1.2               | 93.5              |
| 36    | .9                | 8.0               | 82    | 1.1               | 94.6              |
| 37    | .9                | 8.9               | 83    | 1.1               | 95.7              |
| 38    | 1.0               | 10.0              | 84    | .9                | 96.6              |
| 39    | 1.1               | 11.1              | 85    | .6                | 97.2              |
| 40    | 1.3               | 12.4              | 86    | .6                | 97.8              |
| 41    | 1.3               | 13.7              | 87    | .5                | 98.4              |
| 42    | 1.3               | 15.0              | 88    | .4                | 98.7              |
| 43    | 1.6               | 16.6              | 89    | .4                | 99.1              |
| 44    | 1.5               | 18.0              | 90    | .3                | 99.4              |
| 45    | 1.7               | 19.7              | 91    | .2                | 99.6              |
| 46    | 1.9               | 21.6              | 92    | .2                | 99.7              |
| 47    | 2.0               | 23.6              | 93    | .1                | 99.8              |
| 48    | 1.7               | 25.3              | 94    | .1                | 99.9              |
| 49    | 1.9               | 27.1              | 95    | .0                | 99.9              |
| 50    | 2.0               | 28.2              | 96    | .0                | 100.0             |
| 51    | 2.2               | 31.4              | 97    | .0                | 100.0             |
| 52    | 2.2               | 33.5              | 98    | .0                | 100.0             |
| 53    | 2.1               | 35.7              | 99    | .0                | 100.0             |
| 54    | 2.3               | 37.9              | 100   | .0                | 100.0             |
| TOTAL |                   |                   |       | 100.0             | 100.0             |

### Results for Part A: Multiple Choice

The results for Part A are summarized, by reporting category, in Table 8. Although performance on different reporting categories of the test shows some variation, it is important to note that these scores are not directly comparable. The sets of questions that make up the different categories are not equal in their average level of difficulty, therefore differences may be due to variations in question difficulty rather than in student performance. However, in combination with jurisdiction results, the norms can be used to detect patterns of relative strength or weakness in student achievement. A more acceptable method of comparing student performance on different reporting categories would be to refer to table 9 on page 16.

Table 8  
Results by Reporting Category  
Part A: Multiple Choice

| Reporting Category                                                          | No. of Questions | Average | Standard Deviation |
|-----------------------------------------------------------------------------|------------------|---------|--------------------|
| 1. Total Score (Multiple Choice)                                            | 50               | 29.9    | 8.5                |
| 2. Topic A: How People in Earlier Times Met Their Needs                     | 17               | 10.7    | 3.2                |
| 3. Topic B: How People in Eastern Societies Meet Their Needs Today          | 16               | 9.7     | 3.1                |
| 4. Topic C: Meeting Needs Through Local, Provincial, and Federal Government | 17               | 9.5     | 3.5                |
| 5. Recall and Comprehension (all topics)                                    | 22               | 13.2    | 3.8                |
| Recall and Comprehension (Topic A)                                          | 7                | 5.0     | 1.4                |
| Recall and Comprehension (Topic B)                                          | 7                | 4.1     | 1.6                |
| Recall and Comprehension (Topic C)                                          | 8                | 4.1     | 2.0                |
| 6. Value Concepts and Valuing Skills (all topics)                           | 6                | 3.2     | 1.5                |
| 7. Inquiry Skills I (all topics)                                            | 8                | 5.0     | 1.7                |
| 8. Inquiry Skills II (all topics)                                           | 8                | 5.4     | 2.0                |
| 9. Inquiry Skills III (all topics)                                          | 6                | 3.1     | 1.5                |

The minimum acceptable standard (the score representing borderline achievement) set for the Grade 6 Social Studies Achievement Test by teachers on the multiple-choice section was 21 out of 50. Thus, given adequate teaching and resources, 85% of the students should be at or above this standard.

Table 9 presents the percentages of students scoring at or above the minimum acceptable standard in a number of reporting categories.

Table 9  
Comparison of Results to Standards  
Part A: Multiple Choice

| Reporting Category                    | Raw Score Representing Minimum Standard | % of Students Scoring at or above Minimum Standard |
|---------------------------------------|-----------------------------------------|----------------------------------------------------|
| Total Part A Multiple Choice          | 21                                      | 84.6%                                              |
| <hr/>                                 |                                         |                                                    |
| Recall and Comprehension (all topics) | 9                                       | 87.8%                                              |
| Value and Skill objectives            | 11                                      | 85.8%                                              |
| <hr/>                                 |                                         |                                                    |
| Topic A                               | 7                                       | 89.4%                                              |
| Topic B                               | 7                                       | 83.2%                                              |
| Topic C                               | 7                                       | 79.2%                                              |

The number of students who met the standard was 84.6%. Of the major reporting categories 87.8% met the standard on recall and comprehension, 85.8% on the value and skill objectives, 89.4% on Topic A, 83.2% on Topic B and 79.2% on Topic C.

Response Frequencies for Individual Questions: Part A (Multiple Choice)

The response frequencies for all 50 questions appearing in the test are presented in Table 10.

Table 10  
Response Frequencies  
Part A: Multiple Choice

| Item<br>Number | Key | Distribution of<br>Responses in %* |    |    |    | Item<br>Number | Key | Distribution of<br>Responses in %* |    |    |    |
|----------------|-----|------------------------------------|----|----|----|----------------|-----|------------------------------------|----|----|----|
|                |     | A                                  | B  | C  | D  |                |     | A                                  | B  | C  | D  |
| 1              | B   | 10                                 | 42 | 7  | 41 | 26             | A   | 61                                 | 20 | 6  | 13 |
| 2              | A   | 81                                 | 8  | 7  | 4  | 27             | D   | 7                                  | 10 | 36 | 47 |
| 3              | C   | 12                                 | 15 | 64 | 10 | 28             | B   | 4                                  | 62 | 11 | 24 |
| 4              | C   | 14                                 | 17 | 59 | 10 | 29             | C   | 20                                 | 21 | 53 | 5  |
| 5              | D   | 4                                  | 14 | 2  | 81 | 30             | B   | 10                                 | 72 | 3  | 15 |
| 6              | A   | 88                                 | 5  | 3  | 4  | 31             | A   | 64                                 | 17 | 12 | 6  |
| 7              | A   | 44                                 | 14 | 13 | 29 | 32             | B   | 10                                 | 75 | 7  | 8  |
| 8              | C   | 3                                  | 13 | 77 | 8  | 33             | C   | 26                                 | 3  | 39 | 32 |
| 9              | C   | 16                                 | 8  | 65 | 11 | 34             | D   | 9                                  | 5  | 14 | 72 |
| 10             | B   | 12                                 | 49 | 16 | 23 | 35             | B   | 7                                  | 82 | 6  | 6  |
| 11             | C   | 14                                 | 39 | 42 | 6  | 36             | A   | 66                                 | 12 | 14 | 7  |
| 12             | B   | 7                                  | 83 | 4  | 6  | 37             | D   | 20                                 | 16 | 28 | 36 |
| 13             | B   | 12                                 | 68 | 11 | 10 | 38             | A   | 59                                 | 18 | 15 | 7  |
| 14             | D   | 12                                 | 11 | 6  | 71 | 39             | C   | 12                                 | 16 | 63 | 9  |
| 15             | A   | 48                                 | 6  | 35 | 11 | 40             | D   | 23                                 | 3  | 12 | 62 |
| 16             | A   | 65                                 | 11 | 14 | 10 | 41             | A   | 48                                 | 19 | 14 | 18 |
| 17             | D   | 16                                 | 19 | 18 | 47 | 42             | B   | 17                                 | 38 | 25 | 19 |
| 18             | B   | 5                                  | 69 | 9  | 17 | 43             | C   | 7                                  | 11 | 65 | 16 |
| 19             | D   | 9                                  | 7  | 12 | 73 | 44             | C   | 19                                 | 13 | 40 | 26 |
| 20             | C   | 9                                  | 10 | 57 | 24 | 45             | D   | 16                                 | 12 | 17 | 53 |
| 21             | A   | 76                                 | 9  | 7  | 7  | 46             | D   | 21                                 | 15 | 9  | 52 |
| 22             | D   | 28                                 | 7  | 24 | 41 | 47             | A   | 54                                 | 13 | 19 | 12 |
| 23             | A   | 43                                 | 26 | 23 | 9  | 48             | C   | 10                                 | 26 | 48 | 13 |
| 24             | D   | 9                                  | 19 | 8  | 64 | 49             | B   | 10                                 | 73 | 5  | 9  |
| 25             | B   | 8                                  | 71 | 11 | 9  | 50             | D   | 19                                 | 12 | 26 | 40 |

\*The sum of the percentages may be less than 100% because the No Response category is not included and the numbers have been rounded.

# Results for Part B: Written Response

The results for the written response questions are summarized, by question, in Table 11 below.

Table 11  
Average Scores Awarded for Written-Response Questions  
Grade 6 Social Studies

| Question            | Total Marks Possible | Average Score | Difficulty Level* |
|---------------------|----------------------|---------------|-------------------|
| <u>Short Answer</u> |                      |               |                   |
| 1                   | 2                    | 1.3           | 0.65              |
| 2                   | 7                    | 4.9           | 0.70              |
| 3                   | 4                    | 2.4           | 0.60              |
| 4                   | 2                    | .8            | 0.40              |
| <u>Composition</u>  |                      |               |                   |
| 5                   | 15                   | 7.9           | 0.53              |

\*The difficulty level is the average score divided by total marks possible.

The distribution of scores for the short-answer written-response questions (questions 1 to 4) are presented in Table 12 below.

Table 12  
Distribution of Scores for Short-Answer Written-Response Questions  
Grade 6 Social Studies

| Question | Percentage of Students Obtaining Each Mark |      |      |      |      |      |      |      |      |
|----------|--------------------------------------------|------|------|------|------|------|------|------|------|
|          | NR*                                        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    |
| 1        | 1.5                                        | 20.4 | 22.3 | 55.8 | -    | -    | -    | -    | -    |
| 2        | 1.9                                        | 0.6  | 4.6  | 5.8  | 10.3 | 12.5 | 20.3 | 19.5 | 24.5 |
| 3        | 1.6                                        | 2.2  | 9.8  | 44.0 | 24.6 | 17.7 | -    | -    | -    |
| 4        | 8.2                                        | 28.9 | 47.3 | 15.6 | -    | -    | -    | -    | -    |

\*No Response

The distribution of scores for the composition (question 5), are presented in Table 13 below.

Table 13  
Percentage Distribution of Scores on the Composition  
Grade 6 Social Studies

| Scale Points                                         | Dimension                                        |                                    |
|------------------------------------------------------|--------------------------------------------------|------------------------------------|
|                                                      | Persuasiveness and Logic of Supporting Arguments | Quality of Language and Expression |
|                                                      | (%)                                              | (%)                                |
| 5 (Excellent)                                        | 2.6                                              | 3.1                                |
| 4 (Good)                                             | 11.5                                             | 14.6                               |
| 3 (Satisfactory)                                     | 35.4                                             | 50.4                               |
| 2 (Limited)                                          | 35.4                                             | 25.8                               |
| 1 (Poor)                                             | 10.7                                             | 3.9                                |
| 0 (Off topic, insufficient response, or blank paper) | 4.4*                                             | 2.2*                               |

\*2.2% of the total papers were blank on Question 5.

Question 5 had a value of 15 marks. The marks were distributed as follows: 10 points for the persuasiveness and logic of supporting arguments dimension and 5 points for the quality of language and expression dimension.

The minimum acceptable standard set by teachers for the written-response section was 13 out of 30. Thus 85% of students should be at or above this standard. Table 14 compares results to standards for the written-response part of the test.

Table 14  
Comparison of Results to Standards  
Part B: Written Response

|                 | Raw Score Representing Minimum Standard | % of Students Scoring at or above Minimum Standard |
|-----------------|-----------------------------------------|----------------------------------------------------|
| Questions 1 - 4 | 6                                       | 89.7                                               |
| Question 5      | 7                                       | 68.6                                               |
| Total           | 13                                      | 84.2                                               |

## Discussion of Selected Questions

Selected questions from the Grade 6 Social Studies Achievement Test follow. The purpose of these questions is to illustrate the content, nature, and complexity of questions within the major reporting categories. The keyed answers are indicated by an asterisk. The percentage of students who selected each alternative is given in brackets.

1. RECALL AND COMPREHENSION: (Questions: 2,3,4,5,6,7,12,19,20,21,22,23,24,29  
42,43,44,46,47,48,49,50)

Questions in this reporting category measure a student's ability to recall and understand:

- climatic influences on the development of societies
- examples of ways basic needs were met in early civilizations
- methods of finding out about the past
- methods of social control used by early civilizations
- causes of social change
- responses to the forces of change in societies
- examples of how tradition affects ways people meet their basic needs
- reasons for cross-cultural sharing
- aims of international agencies
- examples of scarcity and ways people attempt to deal with it
- basic principles of democracy
- levels of government in Canada
- steps in the passage of a bill in Canada
- principles of the electoral process in Canada
- structures of the three levels of government in Canada
- purposes of political parties in Canada
- needs to which the three levels of government respond

While students' achievement in this reporting category was very close to the average for the total test, differences in levels of achievement occurred among the three topics. The average score for the questions on Topic A was higher than the average scores for Topic B or Topic C, and the average score for Topic B was higher than the average score for Topic C.

Question 4 is an example of a recall and comprehension question selected from Topic A.

4. When people build shelters, the basic need they are trying to meet is

- (14%) A. social  
(17%) B. cultural  
(59%)\* C. physical  
(10%) D. psychological

Question 4 was of average difficulty and focused on a fundamental concept in the Grade 6 Social Studies curriculum.

Question 22 is an example of a recall and comprehension question from Topic B.



22. A MAJOR reason for importing goods from Southeast Asia is to

- (28%) A. learn about other ways of life
- ( 7%) B. save our own goods for future use
- (24%) C. give aid to Southeast Asian people
- (41%)\* D. have things not grown or made in Canada

This question proved difficult for students; only 41% selected the keyed answer. Some students may have confused the purposes of cultural exchanges, foreign aid, and international trade.

Question 50 is an example of a recall and comprehension question from Topic C.

50. Provincial governments can pass laws regarding

- (19%) A. national defence
- (12%) B. postal service
- (26%) C. citizenship
- (40%)\* D. education

Forty percent of the students chose the keyed answer to this question. This indicates that many students are not clear on the responsibilities of the various levels of government in Canada.

2. VALUE CONCEPTS AND VALUING SKILLS: (Questions 10,11,26,27,34,45)

Questions in this category measure a student's ability to:

- identify beliefs that underlie rigid and open social structures
- identify elements of the conflict related to technology and tradition
- analyze value positions related to technology and tradition
- identify conflicting opinions about the need for government involvement

Student achievement in this category was lower than the average for the total test.

Use the information below to answer question 45.



45. This candidate would MOST LIKELY be supported by a voter who believed that

- (16%) A. children shouldn't have to obey laws
- (12%) B. children shouldn't have a say in making laws
- (17%) C. people should work together to meet needs
- (53%)\* D. people should look after their own needs

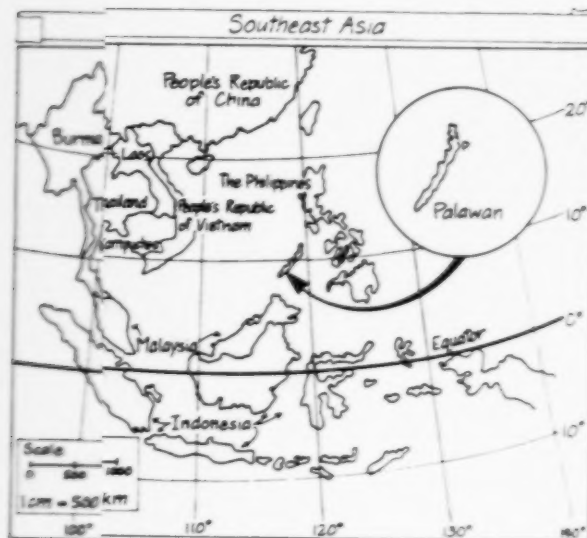
Question 45 required students to analyze the values underlying the speaker's position. This question was of average difficulty. Student responses to the incorrect alternatives were more or less evenly distributed. There does not appear to be a common source of weakness among the students who failed to respond correctly.

3. INQUIRY SKILLS 1: (Questions 1,8,9,18,25,35,37,38)

Questions in this reporting category tested a student's ability to

- read and interpret the latitude and longitude grid system on a map
- read and interpret a graph
- paraphrase a statement of a problem
- use information from a map to support a claim

Use the map below to answer question 18.



18. What information on the map supports the claim that the temperature in Palawan varies little between a winter and summer?

- ( 5%) A. Palawan is a large island.  
(69%)\* B. Palawan is near the equator.  
( 9%) C. Palawan has mountain ridges.  
(17%) D. Palawan has a monsoon season.

Student achievement in this category was slightly higher than the average for the total test. Question 18 is a typical example of a question in this category.

Most students had little difficulty using the map to identify Palawan's location near the equator as the determining factor in this island's climate.

4. INQUIRY SKILLS II: (Questions 13,14,28,30,31,32,36,39)

Questions in this category tested a student's ability to

- categorize information from a chart
- formulate a generalization
- explain differences in perspectives about the use of modern technology
- summarize a body of information

Student achievement in this category was higher than the average for the total test. Questions 30 and 31 are typical examples of this category.

Use the comments below to answer questions 30 and 31.



I use my telephone a lot. I travel a great deal in my job, so I have friends all over the country. I can't visit often, so I need to keep in touch by phone. I often use the phone for my work, too, because I must speak with computer programmers all over Canada.

— Christie Drapeau,  
Canadian consultant



I don't need to use a telephone. After selling my catch of fish each morning, I go to the coffee shop for breakfast. I meet my friends there, and we discuss news from the village. Sometimes truck drivers stop in on their way to Kuala Lumpur and bring news from other villages.

— Abraham B. Hasan,  
Malaysian fisherman

30. Christie and Abraham have different ideas about the need to use telephones because Christie has

- (10%) A. more friends  
(71%)\* B. a different lifestyle  
( 3%) C. different religious beliefs  
(15%) D. a greater need to talk with friends

31. A general statement about all societies that can be supported by the two comments is that people

- (64%)\* A. like to communicate with friends  
(17%) B. have to use telephones to do business  
(12%) C. need to talk to their friends every day  
( 6%) D. want to have friends in far-away communities

Question 30 required students to analyze and evaluate data by explaining differences in the perspectives of people in Canada and Eastern Asia. Question 31 required students to synthesize data by formulating a generalization about the ways people meet their needs. Neither question presented any special difficulties for the students.

5. INQUIRY SKILLS III: (Questions 15,16,17,33,40,41)

Questions in this reporting category tested a student's ability to:

- select information that supports a given generalization
- identify the correct application of a given social situation to a present-day situation
- evaluate a course of action based on the value of equality

Question 40 was part of a family of items dealing with motorcycle helmet laws, and illustrates the skill of "applying the decision". In this question students were asked to create a plan of action.

40. After learning that the helmet law could be removed, a Grade 6 class decided to take action to let people know how they felt about this issue.

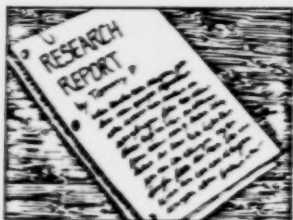
Which action would make the students' point of view known to the greatest number of people?



A. Survey students in other schools  
(23%)



B. Speak to the principal at recess  
(3%)



C. Write a research report  
(12%)



D. Make a presentation to parents  
(62%)

The results show students had little difficulty with this question.

Overall student achievement in the Inquiry Skills III category was lower than the average for the total test.

## FAMILIES OF QUESTIONS

In an attempt to simulate the inquiry process, the test was designed to include series or "families" of questions related to a single issue. Within each family of questions--and as much as possible throughout each section of the test--students followed a logical progression from one question to the next, similar to the sequence followed in the inquiry process.

Questions 34 to 36, which appear on the following pages, illustrate a typical family of questions based on textual material. All questions in the family relate to the same issue.

The data for these questions were as follows:

Read the information below, then answer questions 34 to 36.

The law says that people riding motorcycles must wear helmets. Some people do not like this law and want to see it repealed (removed). Other people support the law.

These are some comments that citizens have made on this issue:



Question 34 was part of the value concepts and valuing skills category. It required students to determine the varying value positions presented in the reading and then identify the values in conflict. The question appeared as follows:

Use the speaker's opinions on the previous page to answer questions 34-36.



34. With which speaker does Steve DISAGREE MOST?

- |                                                                                                              |                                                                                                               |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| (9%)<br><br>A. Ms. Maguire  | (5%)<br><br>B. Mr. Gibeau    |
| (14%)<br><br>C. Mr. Brandon | *(72%)<br><br>D. Miss Seldon |

A greater than average number of students selected the appropriate response to this question.

Question 35 was part of the Inquiry Skills I reporting category. It required students to identify the issue presented in the reading. The question appeared as follows:

35. What is the MAIN issue being discussed by the citizens?
- ( 7%) A. Should taxes be used to pay for motorcycle injuries?
  - (82%)\* B. Should there be a law requiring people to wear motorcycle helmets?
  - ( 6%) C. Should riders who wear helmets be allowed to pay less for medicare?
  - ( 6%) D. Should the law requiring helmets be limited to children who are passengers?

The students found the question relatively easy. Alternative B clearly drew the greatest number of responses with A, C, and D evenly split. This suggests an absence of a common source of weakness among students who incorrectly answered the question.

Question 36 was part of the Inquiry Skills II reporting category. It required students to analyze data and select the best title on the basis of this information.

36. If all of the speakers' comments were being put on a chart, what would be the best title?

- (66%)\* A. Opinions About the Helmet Law
- (12%) B. Effects of Having the Helmet Law
- (14%) C. Reasons for Keeping the Helmet Law
- ( 7%) D. Persons Who Voted for the Helmet Law

The results show the question to be of average difficulty.

## Chapter 6

### GUIDE TO THE INTERPRETATION OF JURISDICTION RESULTS

In addition to their use in monitoring student achievement for the province as a whole, the results of the Grade 6 Social Studies Achievement Test are useful in comparing achievement in a particular jurisdiction with provincial results. However, care must be exercised in making these comparisons and in drawing conclusions from the data.

The following jurisdiction and school reports are provided for each jurisdiction under separate covers.

1. The Jurisdiction Summary Report contains jurisdiction equivalents of the provincial results that are given in all statistical tables in this report.
2. The School Summary Report contains the school equivalents of the provincial results that are given in all statistical tables in this report.
3. Individual Student Subtest Results are reported for each school.

These reports are confidential to the jurisdiction.

#### Differences Between Jurisdiction and Provincial Averages

Jurisdictions are provided with their average scores for each reporting category. These scores may be compared to the provincial average for the same reporting category. However, the importance of differences between jurisdiction averages and provincial averages is not always clear. To aid in the interpretation of differences between the averages, jurisdiction and school reports indicate when the difference is unlikely to be due to chance variation in the abilities of students. For the purposes of the provincial testing program, the 95% confidence interval is used. That is to say, if the probability is less than 1 in 20 that the difference is due to chance, the difference is very likely a real difference, and the jurisdiction average is classified as different from the provincial average. Otherwise, it is classified as not different from the provincial average. The provincial average for that reporting category determines the true population average. The standard deviation for the jurisdiction is used to estimate the standard error of the mean.

Because achievement levels are calculated by taking jurisdiction size into consideration, two jurisdictions with the same averages but of different sizes may be classified differently. The larger jurisdiction would be more likely to be above or below average, because the amount of chance variation would be less in larger jurisdictions, and the actual difference would represent a larger variation from the provincial average.

For example, imagine two jurisdictions, A with 25 students writing Test X, and B with 100 students writing Test X. Both jurisdictions have the same average, 54.2; both jurisdictions have a standard deviation of 12.0. Test X has a provincial average score of 50.0. The difference between the provincial average and the jurisdiction average is 4.2. A difference this large would be expected 8 times out of 100 for groups of 25 selected at random from the population, and fewer than 3 times out of 1000 for groups of 100. Thus the difference from the provincial average would not be statistically significant for Jurisdiction A, but would be for Jurisdiction B.

For the criterion-referenced scales, which are reported as frequency distributions, a slightly different test of significance is used. The proportion of students scoring satisfactory or better (3 or higher) in the jurisdiction is compared with the same proportion for the province, and a chi square test of significance is performed to determine whether the differences could be due to chance. Again, the 0.05 level of significance is used.

When it has been determined that a difference is significant, the direction of the difference is important, particularly for those jurisdictions below the provincial average. These jurisdictions are encouraged to identify the sources of these differences.

School reports contain the same analysis to determine whether the school varies significantly from the provincial mean.

Table 15 on page 31 indicates the percentage of jurisdictions classified as significantly above or below the provincial average for each reporting category.

Table 15

## Distribution of Jurisdiction Levels of Achievement

| Reporting Category                                | % Below the<br>Provincial<br>Mean | % Not Different<br>from Provincial<br>Mean | % Above the<br>Provincial<br>Mean |
|---------------------------------------------------|-----------------------------------|--------------------------------------------|-----------------------------------|
| Total Test                                        | 18.4                              | 57.8                                       | 23.8                              |
| Multiple Choice                                   | 15.9                              | 61.8                                       | 22.2                              |
| Topic A                                           | 15.6                              | 62.9                                       | 21.5                              |
| Topic B                                           | 13.2                              | 70.7                                       | 16.1                              |
| Topic C                                           | 16.9                              | 66.7                                       | 16.4                              |
| Recall and Comprehension<br>(all topics)          | 17.5                              | 64.6                                       | 18.0                              |
| Recall and Comprehension<br>(Topic A)             | 14.0                              | 63.0                                       | 23.0                              |
| Recall and Comprehension<br>(Topic B)             | 13.6                              | 72.3                                       | 14.1                              |
| Recall and Comprehension<br>(Topic C)             | 16.6                              | 68.3                                       | 15.1                              |
| Value Concepts and Valuing<br>Skills (all topics) | 16.5                              | 63.1                                       | 20.4                              |
| Inquiry Skills I<br>(all topics)                  | 12.6                              | 68.1                                       | 19.3                              |
| Inquiry Skills II<br>(all topics)                 | 11.2                              | 68.8                                       | 20.0                              |
| Inquiry Skills III<br>(all topics)                | 16.5                              | 68.4                                       | 15.0                              |
| Written Response                                  | 17.6                              | 61.8                                       | 20.3                              |
| Short Answer<br>(Questions 1-4)                   | 14.1                              | 63.1                                       | 22.8                              |
| Composition<br>(Question 5)                       | 16.8                              | 70.3                                       | 12.9                              |

In examining the test results, the reader must keep in mind that a test score does not indicate why a particular performance occurred, but only that it did occur. After studying the results, the identification of reasons for that performance should be undertaken. There are a variety of factors that should be examined:

1. Student motivation. Consideration should be given to the degree to which students were motivated to perform to their levels of ability.
2. Student ability. While the statistical test of significance is designed to take into consideration fluctuations in the average ability levels of students, it is possible that a group of students with a particularly high or low average ability may come through a system. This is much more likely to be a factor in small systems than in a large one.
3. Readability. The achievement test was designed for a Grade 6 reading level. Jurisdictions should consider the average reading level of their Grade 6 students, as reading levels below Grade 6 will have an effect on test results that will be independent of achievement in social studies.
4. Teaching and curriculum. Consideration should be given to the type of instruction students have received in the jurisdiction and the adequacy of curricular implementation.

There will be other factors that are of importance in particular jurisdictions. School boards wishing to examine further the results in light of local factors are encouraged to establish their own local interpretation panels.

#### Absentee Rates

If more than 10% of the eligible students in a jurisdiction did not write the test, the reported averages for that jurisdiction may not accurately represent the true averages. Teacher-assigned marks for students who did write could be compared with teacher assigned marks for students who did not write. If the averages are the same for the two groups, the reported achievement averages are probably representative. If the averages are different, some estimates can be made of what the achievement averages might have been if all students had written the test. Jurisdictions with high absentee rates may wish to contact the Student Evaluation Branch for assistance in estimating their averages.

Appendix

Grade 6 Social Studies Written-Response Questions

Excerpts from the

Grade 6 Social Studies Written-Response

Scoring Guide

## SOCIAL STUDIES WRITTEN-RESPONSE QUESTIONS

Read the information below and answer question 1.

A Grade 6 class was studying the similarities and differences between families in Canada and families in some Southeast Asian countries. In particular they were looking at how elderly people in Canadian and Southeast Asian families meet their basic needs. While they were discussing this, the question arose: "Should we encourage our elderly people to live in senior citizens' homes?"



1. Would you expect to find a large number of senior citizens' homes in most Southeast Asian countries? Give a reason to support your answer. (2 marks)

Read the students' comments and the list of values given below before answering question 2.



Kyle

"It's better if Grandpa lives in the senior citizens' home. If he came to live with us, he would take my bedroom. I like the way my bedroom is fixed up. I have my drums set up in one corner, and my magazine collection in the other corner. It would be nice to have Grandpa around, but it would be awful to have to share a bedroom with my brother."



Greg

"Grandma loves her back yard. She grows beautiful roses in her garden, and I can be alone there to read. She doesn't want to move to the Old Folks' Manor because she wouldn't be able to do these things anymore. I'd feel the same way if I were Grandma."



Beth

"I would like Grandpa to live in a senior citizens' home. They would prepare his meals, and they have the latest medical equipment and medicine there. He would be well looked after."



Kirsten

"I love sleeping at my Grandma's house. We stay up late drinking hot chocolate and I tell her secrets that I don't even tell my mom or dad. She's my special friend. I don't ever want her to move to a senior citizens' home."

These are some of the values or beliefs that have been expressed by the four students:

- having trustworthy friends
- being accepted by others
- having time to spend alone
- being independent
- having a sense of security
- doing things in familiar ways
- feeling pride in ownership
- enjoying the beauty of nature
- sharing with others
- looking after one's health

Read all parts of this question before you begin to answer it.

2. a. Choose one of the four students whose opinion is given on page 4.  
(7 marks)

Student's name

Choose a value that this student thinks is important from the list on page 4.

Value

What makes you think that this student holds this value?

- b. Now choose a student whose opinion on the issue is OPPOSITE to that of the student you named above.

Student's name

Choose a value that this student thinks is important from the list on page 4.

Value

What makes you think that this student holds this value?

3. a. What is an important ADVANTAGE of having senior citizens' homes?  
(4 marks) Explain your answer.
- b. What is an important DISADVANTAGE of having senior citizens' homes? Explain your answer.
4. a. From your answers to question 3a and 3b, what conclusion can you  
(2 marks) draw about the types of basic needs that are best met by senior citizens' homes? Explain your answer.

Use the information below to answer question 5.

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Many people in Southeast Asian countries meet their basic needs by spending all of their lives in the community in which they were born. In Canada some people meet their basic needs by remaining in their home communities, while others leave their families and move to another community once they have graduated from high school.

Imagine that your class is having a discussion on the issue of whether young people should be encouraged to stay in their home communities.

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5. In two or more paragraphs, state your views on the issue: SHOULD  
(4 marks) YOUNG PEOPLE BE ENCOURAGED TO STAY IN THEIR HOME COMMUNITIES?

Give the arguments that you would use to persuade your classmates to agree with you. Try to be convincing. Pay attention to how you organize and express your ideas. Think about reasons people have for remaining in or leaving their community. Think about the advantages and disadvantages.

## SCORING GUIDE

### QUESTION 1

Response Mode: Several words or phrases or complete sentences

Mark Allocation: Two marks, to be distributed according to the criteria stated below.

#### CRITERIA FOR SCORING

1. One mark for indicating that one would NOT expect to find a large number of senior citizens' homes in most Southeast Asian countries.
2. A second mark for a valid reason supporting the answer. The reason should include reference to the values, traditions or economic conditions of Southeast Asian societies.

### QUESTION 2

Response Mode: Several words or phrases, or complete sentences

Mark Allocation: Seven marks for accurate and appropriate responses to question 2, parts a and b, distributed as follows:

- One mark for selection of speakers with conflicting views
- One mark for identification of the value for each speaker (total of two marks)
- Two marks for presentation of appropriate evidence for each speaker (total of four marks)

#### Criteria For Scoring

1. One mark for selecting any one of the following combinations of speakers with conflicting views.

Kyle and Greg  
Kyle and Kirsten

Beth and Greg  
Beth and Kirsten

2. One mark for identifying and naming an appropriate value for each speaker.
3. Two marks for the selection and explanation of appropriate evidence from the passage.  
One mark for giving an appropriate but unexplained quote from the chosen speaker.

### QUESTION 3

Response Mode: One or more ideas expressed in one or more phrases or sentences

Mark Allocation: Two marks for each part of question 3 (parts a and b) according to the criteria stated below.

#### CRITERIA FOR SCORING

##### Question 3a

1. One mark for stating an important ADVANTAGE of having senior citizens' homes.
2. A second mark for a valid explanation of the stated advantage.

##### Question 3b

1. One mark for stating an important DISADVANTAGE of having senior citizens' homes.
2. A second mark for a valid explanation of the stated disadvantage.

### QUESTION 4

Response Mode: Several phrases, or sentences

Mark Allocation: Two marks, to be distributed according to the criteria stated below.

#### CRITERIA FOR SCORING

1. Two marks for a valid conclusion that is logically supported or explained.
2. One mark for a valid conclusion that is not logically supported or explained.

SCORING GUIDE: QUESTION 5

Response Mode: An extended response, two or more paragraphs in length

Mark Allocation: A total of 15 marks is allotted to this question. The question will be scored within two dimensions: Persuasiveness and Logic of Supporting Arguments, and Quality of Language and Expression. Both dimensions are based on five point scales, but the score on the first dimension, Persuasiveness and Logic of Supporting Arguments, will be multiplied by two, for a total of ten marks. The criteria for scoring question 5 appear below and on the following page.

1. PERSUASIVENESS AND LOGIC OF SUPPORTING ARGUMENTS

| DESCRIPTOR        | CRITERIA FOR SCORING                                                                                                                                                                                                                                                                                                 |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXCELLENT<br>5    | A strong position is developed on the issue based on one or more carefully selected points. The argument is supported by perceptive statements of fact or experience. A sound and very persuasive case is made.                                                                                                      |
| GOOD<br>4         | A clear position on the issue is developed based on one or more relevant points. The argument is supported with appropriate statements of fact or experience. A persuasive case is made.                                                                                                                             |
| SATISFACTORY<br>3 | An identifiable position on the issue is developed based on one or more supporting, although minor, points. The argument, while adequate, may contain a number of unwarranted assumptions or assertions. A case is made but it may not be very persuasive.                                                           |
| LIMITED<br>2      | A confused position on the issue is developed or an identifiable position is developed that is supported with an argument that lacks relevance. The argument may be based on emotion rather than logic. While an attempt is made to present a case, the ideas are not sufficiently cohesive to be considered as one. |
| POOR<br>1         | No position on the issue is discernible, or a position is stated, but there is little or no development. No case is made.                                                                                                                                                                                            |

A zero is assigned to papers that are off topic or totally illegible. It is not an indicator of quality.

## 2. QUALITY OF LANGUAGE AND EXPRESSION\*

| DESCRIPTOR        | CRITERIA FOR SCORING                                                                                                                                                                    |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXCELLENT<br>5    | Ideas are accurately expressed and logically organized. The language used is accurate and effective, although minor grammatical and spelling errors may be present.                     |
| GOOD<br>4         | Ideas are clearly expressed and well organized. The language used is clear and understandable, although several minor grammatical and spelling errors may be present.                   |
| SATISFACTORY<br>3 | Ideas are adequately expressed and organized. The language used is understandable, although there may be a number of grammatical and spelling errors.                                   |
| LIMITED<br>2      | Ideas are expressed in a confused and vague manner. The language used displays frequent grammatical and spelling errors making understanding more difficult.                            |
| POOR<br>1         | Ideas are expressed in a very disorganized and disjointed manner. The language used is so seriously flawed with grammatical and spelling errors that obstruct meaningful communication. |

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\*Given the circumstances under which students are required to write, it is not possible for them to edit and refine their work. Grammatical and spelling errors are therefore tolerated provided that they do not impede communication.